

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

FACT SHEET

(pursuant to NAC 445A.236)

Permittee Name: CYANCO
P. O. Box 1999
5505 CYANCO Drive
Winnemucca, NV 89445

Permit Number: NEV89024

Location CYANCO Production Facility
Township 35N, Range 37E, Section 6
7 Miles Southwest of Winnemucca, Humboldt County, Nevada
Latitude 40°, 56', 30" N
Longitude 117°, 52", 00" W

Effluent Flow: 1.285 MGD Daily Maximum

Well Head Protection

The facility is not within a 2-, 5-, or 10-year capture zone for any well head protection program. The facility is not within the 7000-foot buffer zone for any public water supply well.

General:

The applicant seeks renewal and modification of permit #NEV89024 which was originally issued in February 1990. The applicant operates a sodium cyanide manufacturing plant that produces a liquid sodium cyanide product with a nominal concentration of 30 percent sodium cyanide. The process involves the reaction of methane (natural gas) and ammonia at an elevated temperature (1050° C). The reaction products are then sent to a scrubber where they are absorbed into a caustic soda solution as sodium cyanide. On-site above ground tanks and some rail cars store liquid ammonia, 50% caustic soda solution and the liquid sodium cyanide product. Any product that does not meet specifications is recycled. Storage tanks or rail cars containing hazardous chemicals are contained on an impermeable surface or on trestles and within a bermed area with the capacity to contain 1 1/2 times the contents of the tanks should a spill occur. All fluid that incidentally enters containment is returned to the process. Permit NEV89024 is a zero discharge permit.

Receiving Water Characteristics:

The facility is outside the 100-year flood plain and over one mile from the Humboldt River. Depth to ground water at the site is 61 feet. Water used in the process is pumped from two on-site wells, W-0000 and W-0010. Ground water quality meets most primary drinking water standards for inorganic elements and compounds. Arsenic, at 0.031 mg/l, exceeds the U. S. EPA primary drinking

water standard of 0.01 mg/l.

Flow:

No discharges are authorized by this permit. Stormwater is contained within the fenced process area and is disposed of by consuming it in the cyanide manufacturing process or evaporating it within the lined containment area.

Procedures for Public Comment:

The Notice of the Division's intent to issue a permit authorizing the facility to operate, subject to the conditions contained within the permit, is being sent to the **Nevada Appeal** and the **Humboldt Sun** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit may do so in writing for a period of 30 days following the date of the public notice. All comments regarding this permit must be received or postmarked by **5:00 PM on October 25, 2004**. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator or any interested agency, person or group of persons.

The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determined to be appropriate. All public hearings must be conducted to accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Proposed Determination

The Division has made the tentative determination to reissue the proposed permit. The Division does not intend change the current permit to allow the use of non-contact cooling water for agricultural use.

Proposed Effluent Limitations, Schedule of Compliance and Special Conditions

GROUNDWATER MONITORING:

The two monitoring wells, MW-1 and MW-2 shall be monitored as in the table below.

Parameter	Permit Limit	Frequency	Sample Type
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Depth to Groundwater (ft)	Monitor & Report	Quarterly	Discrete
Groundwater Elevation (ft AMSL)	Monitor & Report	Quarterly	Calculate
Ammonia as N (mg/l)	Monitor & Report	Quarterly	Discrete
Chloride (mg/l)	Monitor & Report	Quarterly	Discrete
Nitrate as N (mg/l)	10.0	Quarterly	Discrete
pH (Standard Units)	Monitor & Report	Quarterly	Discrete
Sulfate (mg/l)	Monitor & Report	Quarterly	Discrete
TDS (mg/l)	Monitor & Report	Quarterly	Discrete
Total Cyanide (mg/l)	0.20	Quarterly	Discrete

The production water wells, W-000 and w-0010 shall be monitored as in the table below.

Parameter	Permit Limit	Frequency	Sample Type
Ammonia as N (mg/l)	Monitor & Report	Quarterly	Discrete
Chloride (mg/l)	Monitor & Report	Quarterly	Discrete
Nitrate as N (mg/l)	Monitor & Report	Quarterly	Discrete
pH (Standard Units)	Monitor & Report	Quarterly	Discrete
Sulfate (mg/l)	Monitor & Report	Quarterly	Discrete
TDS (mg/l)	Monitor & Report	Quarterly	Discrete
Total Cyanide (mg/l)	0.20	Quarterly	Discrete

If cyanide is detected at any concentration in any of the monitoring samples the Bureau of Water Pollution Control shall be notified by the end of the first business day following the detection of cyanide.

Rationale for Permit Requirements

The design of this facility meets the State's zero discharge standard of performance. No discharge of fluids or wastes are allowed at the facility. Storage tanks or rail cars containing hazardous chemicals are required to be contained on an impermeable surface or on trestles and within a bermed area with the capacity to contain 1 1/2 times the contents of the tanks should a spill occur. Ground water monitoring is required to confirm that contaminants have not entered the waters of the state.

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Nevada Division of Environmental Protection
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